

## Claims

I claim:

1. A method comprising:

a computer-implemented method for use in determination of implied volatility in options pricing, said method comprising the division of the period until option expiration into sub-periods, and calculation of a node vega, said node vega being the exact derivative of the option price with respect to the volatility in at least one of said subperiods.

2. A method as claimed in claim 1, wherein said node vega is calculated at the end of a plurality of said subperiods.

3. A method as claimed in claim 1, wherein said method is used for calculation of implied volatility for American options.

4. A method as claimed in claim 1, wherein said method is conducted using a Cox-Ross-Rubinstein (CRR) binomial tree.

5. A method comprising:

a computer-implemented method for use in determination of implied volatility in options pricing, said method comprising the division of the period until option expiration into sub-periods, and calculation of a node vega, said node vega being the exact derivative of the option price with respect to the volatility in at least one of said subperiods, said node vega being calculated using Equation (5).

6. A method as claimed in claim 5, wherein said node vega is calculated at the end of a plurality of said subperiods.

7. A method as claimed in claim 5, wherein said method is used for calculation of implied volatility for American options.
8. A method as claimed in claim 5, wherein said method is conducted using a Cox-Ross-Rubinstein (CRR) binomial tree.